FOR WEYERHAEUSER OF CANADA-EDSON DIVISION,

MILLAR WESTERN FOREST PRODUCTS LTD. AND AFFECTED GRAZING DISPOSITION HOLDERS

Guidelines

FOR INTEGRATING TIMBER HARVESTING AND DOMESTIC GRAZING IN THE GREEN AREA

Alberta

SUSTAINABLE RESOURCE DEVELOPMENT

102-05679/

Acknowledgements

These guidelines were developed in direct consultation with the Guidelines Working Group:

Northern East Slopes, Grazing Advisory Committee (GAC):

- Peter Aschenmeier (Chair, May 1997 - present)
- John Baxter (May 1997 - August 2001)
- Roy Thompson (May 1997 - present)
- Terry Wentland (May 1997 - August 2001)
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- Garrett MacAskill (public member, August 2001 - present)

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Jonathan Russell/Ray Hilts from Millar Western Forest Products Ltd.

The Local Advisory Committee's (LAC) from the Miscellaneous Timber Use (MTU) program, surrounding Forest Management Agreement (FMA) holders, the Forest Resource Improvement Association of Alberta and green area grazing disposition holders were also consulted while drafting the document.

Review Process

Regional discussion on timber harvesting and domestic grazing issues was formally initiated at a Grazing Reforestation Workshop hosted by the former department of Alberta Environment, Land and Forest Service and Weyerhaeuser-Edson on June 13th 1997. This workshop identified operational concerns from timber and grazing operators and communicated research findings conducted by the University of Alberta. This established the need for integrated resource planning. As a result formal discussion of the Guidelines Working Group started in February 1998 and in April 1998 a set of operating guidelines were presented to the LFS, Northern East Slopes (NES) Regional Director.

Following consultation from surrounding FMA holders and LAC groups a set of guidelines were released by the Regional Director in May 1999 for a trial period with a review in 2000-01. Based on the trial review the guidelines were updated in January 2001 and submitted for implementation into the Whitecourt zonal ground rules.

Based on a request from the GAC for formal approval of the guidelines a second external review was conducted. On May 24, 2001 the surrounding FMA holders, LAC groups, and FRIAA were asked to submit comments regarding the guidelines - Version May 2001.

On June 13, 2001 the Grazing Advisory Committee held a meeting to present the guidelines to affected grazing disposition holders. From the grazing stakeholders in attendance (approximately 35) there was a unanimous decision to accept the guidelines in principle.

Based on written comments from the FMA holders, LAC groups, FRIAA and input from the grazing stakeholders meeting, the guidelines were re-edited. This resulted in a more balanced approach process for integrating timber and grazing operations. The updated guidelines were then reviewed and accepted by the Guidelines Working Group.

November 27, 2001 a third and final review was requested from the surrounding FMA holders, LAC groups, and FRIAA prior to final sign-off. In January 2002, the document was re-edited based on written comments from the regional FMA holders and FRIAA. The document is now directed to FMA specific operating ground rules for implementation with grazing disposition holders.

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Purpose

To assist timber and grazing operators successfully integrate timber harvesting, reforestation, and domestic grazing activities to achieve sustainable timber and forage production while considering other values.

Background

Alberta Sustainable Resource Development (SRD) has a mission to "optimize the sustained contribution from Alberta's resources in the interests of Albertans". As extraction of natural resources becomes more intensive there is a need to establish integrated resource management (IRM) practices, to ensure sustainable resources for all users. Concerns arising from regional timber operators and green area grazing disposition holders, have lead both parties to agree to look for better ways to integrate harvest and grazing management practices. With the government's continued commitment to stakeholder input, these regional guidelines were established with participation from affected timber operators and the Grazing Advisory Committee (GAC), with final review by SRD.

Standards to integrate timber harvesting and domestic grazing were first established by the Alberta Timber Harvest Planning and Operating Ground Rules (1994). The guidelines were added to develop a communication and planning process for integrating harvesting and grazing operations. The standards and guidelines were both developed in accordance with the forest sector's legal obligation to meet provincial regeneration standards (Alberta Regeneration Survey Manual 2000). These guidelines should also be linked with zonal or FMA specific ground rules that address operational integration of grazing and harvesting operations.

Integration Standards

1. On grazing dispositions, timber operators must initiate contact with grazing operators to notify them of future timber harvesting. Then the grazing operator and the timber operator must work together to discuss and document issues and concerns.

2. Timber operations must be planned to maintain the grazing capacity for domestic livestock. As well, grazing operators must co-operate with the timber operator to maintain provincial regeneration standards.

3. During harvest, hauling, reforestation and reclamation operations, the timber operator must maintain existing roads, bridges or improvements to active grazing dispositions.

4. The timber operator must advise the grazing operator at least 10 days before operations begin on timber dispositions affecting a grazing disposition.

In order to ensure these integration standards are achieved a Silviculture Range Working Agreement (SRWA) is recommended. The SRWA is a negotiated agreement that integrates timber harvesting, silviculture, and range management to ensure sustainable timber, forage, and other values, e.g. wildlife habitat, and watershed protection. This documented agreement, linked to the forest management planning process, would outline specific harvesting, reforestation and grazing operations. The SRWA is signed by both the timber operator(s) and the grazing operator(s) and submitted to the LFD Forest Area.

Integration Guidelines

There are three management phases: planning, operating, and monitoring. Each phase has a role for each timber and grazing operator. LFD's role will be to mediate the planning and negotiation process to ensure the appropriate level of planning takes place. LFD is responsible for final approval of various plans (e.g. Compartment Assessment, Compartment Design, Annual Operating Plan, Range Management Plan) submitted authorizing harvesting, reforestation and grazing operations. LFD will ensure these plans and operations are integrated by ensuring each party complies with the integration responsibilities in each management phase. (Tables 1, 2, 3, 4).

PLANNING PHASE

In forest management planning, there are two recognized stages for submitting negotiated agreements to Land and Forest Division. These include the Compartment Assessment and the Compartment Design. These planning stages should be used to negotiate operational practices that integrate resource needs. The Silviculture Range Working Agreement (SRWA) should be initiated during the Compartment Assessment to establish communication and develop ideas for the integration. The signed SRWA would be reviewed and incorporated as part of an approved Compartment Design. The timber operator's Annual Operating Plan (AOP) is the final approval for harvesting schedules. The SRWA is to be implemented within these harvesting schedules and further linked through the operating and monitoring phases (Figure 1).

> *The Silviculture Range Working Agreement, approved at the compartment design stage, should document that both the timber and grazing operator's concerns were addressed and the appropriate level of planning and negotiations took place. If there is a conflict related to timber and grazing operations, the Land and Forest Division Area Manager would facilitate a dispute resolution process between both parties, in order to finalize the signed agreement.*
>
> *This will involve a meeting with representation from the timber and grazing operators (Tables 1 to 4), and Land and Forest Division. The meeting will address the concerns, and possible solutions given the four integration standards (see page 2). All parties must sign the final SRWA. If a consensus cannot be reached, the Land and Forest Division Area Manager will impose any necessary conditions prior to the approval of the Compartment Design.*

The SRWA, initiated through the compartment assessment should define:

1. An inventory of existing developments

and/or improvements to the grazing disposition should be included in the overall plan for the area. Developments and improvements may include: fencelines, gates, corrals, native grasslands, tame pastures, natural water supplies, wind breaks, and other range improvements such as dug-outs, cattle trails, and salt locations. LFD will authorize any new developments; if developments include timber removal, i.e. for cattle distribution trails or fence line clearings, timber operators must be consulted.

2. Objectives and benchmarks of forage and fibre sustainability:

- A minimum baseline for forage (grazing capacity measured in Animal Unit Months [AUMs]) and timber (based on site index and approved regenerated yield curve) should be determined. This will establish a benchmark for sustaining forage and timber resources. Land and Forest Division will be responsible for assessing the grazing capacity based on Methodology for Calculating Carrying Capacity and Grazing Capacity on Green area Grazing Dispositions (SRD, 2001).

- The timber operator will provide timber site indexes and yield curves, on proposed cutover areas, where they are responsible for reforestation.

3. Existing management practices and site conditions.

- Evaluation of range health and range management practices.
- Status of existing cutblocks.
- Preharvest assessments.
- Species, location and extent of restricted and noxious weeds.

4. Strategies that integrate harvesting, reforestation, and range management practices:

a) Protect existing developments:

- Acknowledge existing developments such as: water sources, fencelines, native grasslands, tame pastures, corrals, and cattle trails.
  - To protect existing development on grazing dispositions harvesting timber in the winter months is recommended, or where possible schedule harvest operations to non-grazing periods to minimize conflicts.
  - Physical damage that may be caused from harvesting, reforestation, and grazing operations to existing developments or property should be addressed before the new grazing season (June 1).

b) Sustain the forage and fibre resources:

- Timber Management (for seedling establishment, understory protection, and yield curve projections):
  - Harvesting schedule, i.e. year, season, possible entry date for logging, and number of harvesting passes.
  - Size, location, configuration, and number of cutblocks.
  - Harvesting methods.
  - Slash disposal and cleanup, road construction, and reclamation.
  - Reforestation methods, site preparation, planting activities, stand tending, and timing.

- Range Management (to ensure AUMs):
  - Deferred seasonal grazing.
  - Rotational grazing systems.
  - Re-assess primary and secondary range (grazing capacity).
  - Managing livestock distribution in conjunction with harvested cutblocks.

5. Existing access and future access requirements:

- Access control objectives from the grazing operator.
- Reclamation of roads.
- Traditional cattle access across blocks to specific points.
- Access requirements (timeframe), maintenance and season of use.
- Water course crossings.

A resource inventory checklist (Appendix I) is available to ensure all the relevant information is considered during the planning process. This checklist will assist timber and grazing operators in reaching common ground, but it is not intended to replace negotiations. An example of a SRWA (Appendix II), and a glossary of terms (Appendix III), is also available as a suggested format and to clarify terminology.

OPERATING PHASE

This phase involves implementing the approved SRWA delivered through the timber operator's approved AOP. In most cases LFD will be responsible for operational monitoring through onsite inspections which are already required for monitoring timber management. This does not restrict the self-reporting systems established with FMA holders and LFD. However, it is further recommended that timber and grazing operators conduct a joint field inspection (Appendix IV) prior to harvesting to reaffirm the terms within the SRWA. This could be done at the 10 day harvesting notification period (see integration standard #4). This type of commitment and communication between both parties should continue during and following the harvesting operations and reforestation to resolve any concerns.

MONITORING PHASE

This phase is important to ensure the SRWA objectives are met. The timber and grazing operators must ensure the post-harvest management practices identified in the SRWA are carried out. Secondly, if monitoring identifies that the SRWA does not meet its stated objectives, then the agreement should be amended and submitted to LFD.

Joint field inspections should be conducted at one, two, three, and five and possibly eight years (for coniferous blocks), following the first harvest pass. Grazing-reforestation research indicates that regeneration within the first two to three years following harvesting could be the most critical for long-term sustainability. So it is critical to monitor these events and make the appropriate adjustments to meet SRWA objectives. These joint inspections should also be incorporated with regeneration surveys, required according to current regulations, to document regeneration establishment.

A joint inspection form has been developed to assess whether the objectives established in the approved SRWA were achieved (Appendix IV). This joint field inspection form should be signed by both timber and grazing operators and submitted to LFD.

SUMMARY OF INTEGRATED RESOURCE MANAGEMENT PHASES

The following figure and tables break down the integration process. They illustrate the roles and responsibilities of timber and grazing operators, and LFD during the three management phases. It should be used as a guide to assist communication, documentation, management planning, and implementation towards land use objectives.

This information should be used to assist operators and LFD to develop management strategies that achieve the four integration standards in an effective and timely manner. The result should be a comprehensive but flexible working agreement that addresses the issues and provides a clear understanding of how to integrate resources.

This document should also be linked to zonal and FMA specific operating ground rules as an effective process of how to address timber harvesting activities on active grazing dispositions.

LFD will continue to mediate this process and where required respond to specific issues. If necessary, the LFD can ensure both parties are in compliance with the agreement through enforcement of the timber operator and grazing operator's plans and disposition conditions, recognizing existing agreements in place.

A periodic review of this document may be necessary to further assist integration for improved efficiency and effectiveness for both the grazing and timber operators, while sustaining other resource values, e.g. wildlife habitat and watershed protection.

Figure 1

PROCESS FLOW DIAGRAM

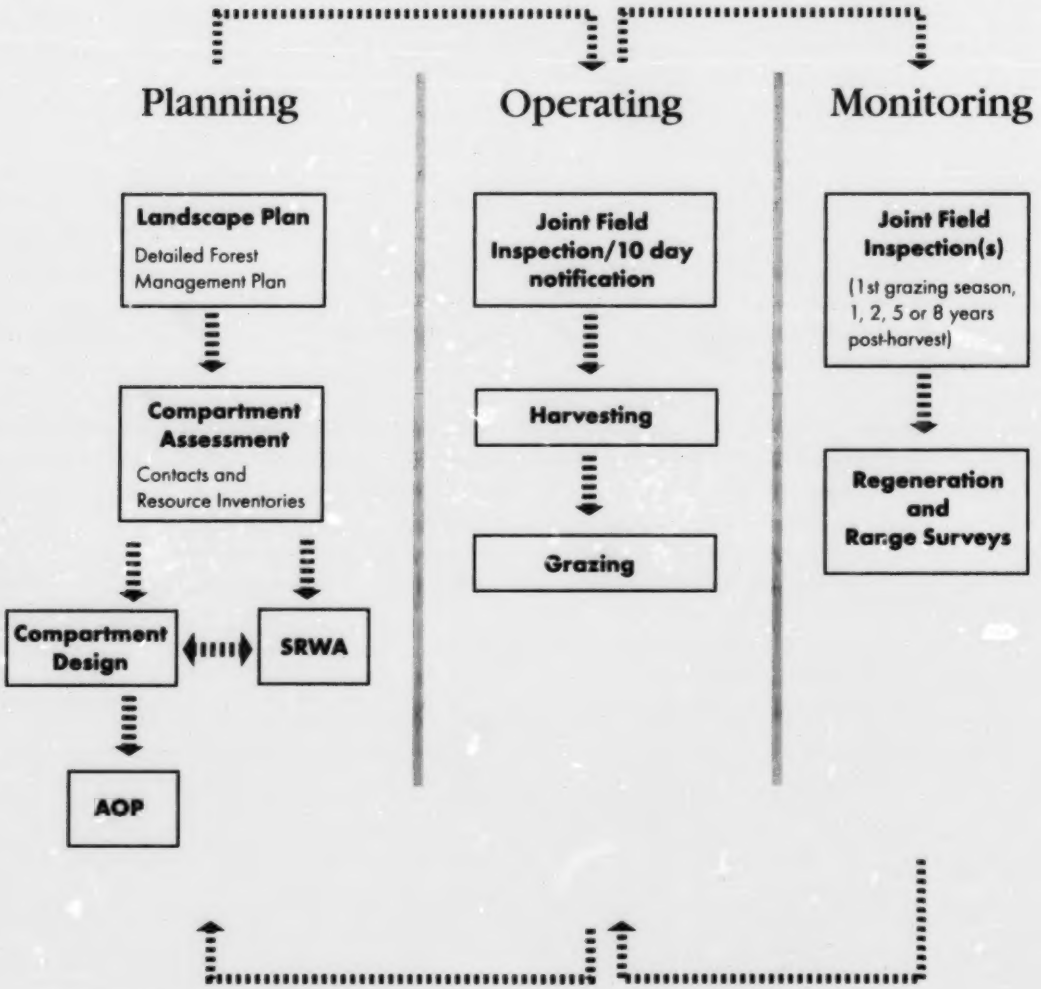

TABLE #1:

Integration Responsibilities of FMA/Quota Holder and Grazing Disposition Holder

Planning	COMPARTMENT ASSESSMENT	Review and approval.	Initial communication to develop resource inventories (Appendix 1) and initiate planning options	
	COMPARTMENT DESIGN (CD)	Review and approval of CD and range grazing capacity.	Signed Silviculture-Range Working Agreement (SRWA).	
	ANNUAL OPERATING PLAN (AOP)	Review and approval of AOP.	Coordinate the harvest schedules with the SRWA.	
Operating	10 days prior to harvesting	Responsible for operational monitoring, through onsite inspections and audits. Required for block clearance.	Joint field inspection of the harvested areas recognizing commitments within the SRWA. This may be part of the self-reporting system setup with LFD.	
	During harvesting and reforestation phase.		Communication of problems occurring during and immediately following harvesting and reforestation operations.	
	Immediately following harvesting and reforestation phase			
Monitoring	Before and/or during first grazing season following 1st HP.	Monitor industry silviculture practices. Review joint field inspection reports and amendments to the SRWA.	Complete joint field inspection reports. Identify problem areas (if any) and make changes to the SRWA (if required). Submit inspection reports and amendments to the SRWA to LFD.	
	1 year following 1st HP.			
	2 and/or 3 years following 1st HP.			
	5 years following 1st HP.	Review surveys and conduct grazing inspections.	Regeneration surveys	Grazing inspections
	8 years following 1st HP for conifer blocks.			

TABLE #2:

Integration Responsibilities of CTP/DTP Holder and Grazing Disposition Holder Where the FMA Holder is Responsible for Planning and Reforestation.

Planning	COMPARTMENT ASSESSMENT	Review and approval.	Initial communication to develop resource inventories (Appendix 1) and initiate planning options.		
	COMPARTMENT DESIGN (CD)	Review and approve of CD and range grazing capacity.	Signed Silviculture-Range Working Agreement (SRWA).		
	ANNUAL OPERATING PLAN (AOP)	Review and approve AOP.	Coordinate the harvest schedules with the SRWA.		
Operating	10 days prior to 1st HP.	Operational monitoring, through onsite inspections. Required for block clearance.	Joint field inspection of the harvested areas with commitment made by both parties from the SRWA.		
	During harvesting and reforestation operations.		Communication of problems (if any) occurring during and immediately following harvesting and reforestation operations. Make amendments to SRWA if necessary and submit to LFD.		
	Immediately following harvesting and reforestation operations.				
Monitoring	Before and/or during first grazing season after 1st HP.	Monitor silviculture practices. Review joint field inspection reports and amendments to the SRWA.	In review of the SRWA, complete joint field inspection reports. Identify problem areas (if any) and make amendments to the SRWA (if necessary). and submit to LFD.		
	1 year after 1st HP.				
	2 and/or 3 years after 1st HP.				
	5 years after 1st HP.	Review surveys and conduct grazing inspections.	Regeneration surveys	Grazing inspections.	
	8 years after 1st HP for conifer blocks.				

TABLE #3

Integration Responsibilities of CTP/DTP Holder and Grazing Disposition Holder Where LFD is Responsible for Planning and FRIAA is Responsible for Reforestation

Planning	COMPARTMENT ASSESSMENT	Initial communication to develop resource inventories (Appendix 1) and initiate planning options.			
	COMPARTMENT DESIGN (CD)	Signed Silviculture-Range Working Agreement (SRWA).			
	ANNUAL OPERATING PLAN (AOP)	Coordinate the harvest schedules (AOP) with the SRWA.			
Operating	10 days prior to 1st HP.	Operational monitoring, through onsite inspections. Required for block clearance.	Joint field inspection of the harvested areas with commitment made by both parties of from the SRWA.		
	During harvesting and reforestation operations.		Communication of problems (if any) occurring during and immediately following harvesting and reforestation operations. Make amendments to SRWA if necessary and submit to LFD.		
	Immediately following harvesting and reforestation operations.				
Monitoring	Before and/or during first grazing season after 1st HP.	Complete joint field inspection reports. Identify problem areas (if any) and amend the SRWA.			
	1 year after 1st HP.	Monitor silviculture practices. Review joint field inspection reports and amendments to the SRWA.	Continue joint inspection reports, amend SRWA if necessary and submit to LFD.		
	2 and/or 3 years after 1st HP.				
	5 years after 1st HP.	Review surveys and conduct grazing inspections.	Regeneration surveys	Grazing inspections.	

TABLE #4:

Integration Responsibilities of CTP/DTP Holder and Grazing Disposition Holder Where the CTP/DTP Holder is Responsible for Planning and FRIAA is Responsible for Reforestation.

Planning	COMPARTMENT ASSESSMENT	Review and approval.	Initial communication to develop resource inventories (Appendix 1) and initiate planning options.		
	COMPARTMENT DESIGN (CD)	Review and approval of CD and range grazing capacity.	Signed Silviculture-Range Working Agreement (SRWA).		
	ANNUAL OPERATING PLAN (AOP)	Review and approve.	Coordinate the harvest schedules (AOP) with the SRWA.		
Operating	10 days prior to 1st HP.	Operational monitoring, through onsite inspections. Required for block clearance.	Joint field inspection of the area with commitment made by both parties from SRWA.		
	During harvesting and reforestation operations.		Communication of problems (if any) occurring during and immediately following harvesting and reforestation operations. Make amendments to SRWA if necessary and submit to LFD.		
	Following harvesting and reforestation operations.				
Monitoring	Before or during first grazing season after 1st HP.	Monitor silviculture practices. Review joint field inspection reports and amendments to the SRWA.	Complete joint field inspection reports. Identify problem areas (if any), amend the SRWA and submit to LFD.		
	1 year after 1st HP.				
	2 and/or 3 years after 1st HP.				
	5 years after 1st HP.	Review surveys and conduct grazing inspections.		Regeneration surveys	Grazing inspections.
	8 years after 1st HP for conifer blocks.				

APPENDIX I

Resource Inventories

INVENTORY OF GRAZING DEVELOPMENTS:

- Location and condition of all fencelines, gates, corrals, native grasslands, tame pastures, natural water supplies, wind breaks, and other range improvements such as dug-outs, cattle trails, and salt locations.
- Access roads, or routes i.e. graded roads, seismic lines, pipelines, wellsites, powerlines, and gates.
- Note: this list may not be inclusive for all situations.

RANGE MANAGEMENT:

- An assessment is to be conducted, indicating the grazing capacity (AUMs), based on current animal distribution, of the grazing disposition.
- Current practices, such as stocking rates, entry dates, exit dates, livestock type, current use (distribution) by the livestock, rotational grazing systems, primary range, secondary range.
- Species, location and extent of restricted and noxious weeds.

TIMBER MANAGEMENT:

- Status of existing cut-blocks, i.e. SR - Satisfactorily Restocked or NSR - Not Satisfactorily Restocked.
- Regeneration projections noting approved yield curves, moisture-nutrient regimes, stand characteristics, soil types, topography, slope, etc. (preharvest assessment).

OTHER RESOURCE VALUES:

- Wildlife habitat requirements.
- Recreational activities.

All existing facilities, harvesting designs, schedules, range and weed inventories should be mapped to assist the planning process.

STRATEGIES TO INTEGRATE SUSTAINABLE FIBRE AND FORAGE:

TIMBER MANAGEMENT:

- Harvesting schedule, i.e. year, season, possible entry date for logging, and number of harvesting passes.
- Size, location, configuration, and number of cutblocks.
- Slash disposal and cleanup, road construction, and reclamation.
- Reforestation methods, site preparation, planting activities, and timing.

RANGE MANAGEMENT:

- Deferred seasonal grazing.
- Rotational grazing systems.
- Re-assess primary and secondary range (grazing capacity).
- Managing livestock distribution in conjunction with proposed and existing cutblocks.

APPENDIX II

Example of a Silviculture Range Working Agreement

OBJECTIVE

To develop a long-term management plan for the area to ensure the sustainable production of timber and forage resources, as well as maintaining watersheds and suitable habitat for wildlife.

CONCERNS

- Damage to existing range improvements and facilities created during and following timber harvest extraction.
- Harvesting operations and reforestation reducing the area grazing capacity.
- Risk of grazing activities reducing regeneration requirements on cutblocks.
- Risk of grazing activities reducing quality of timber stock.

PLANNING:

1) Inventory of existing grazing developments:

   - Location and condition of all fencelines, gates, corrals, native grasslands, natural water supplies, wind breaks, and other range improvements such as seeded pastures, dugouts, cattle trails, and salt locations.
   - Access roads, or routes i.e. graded roads, seismic lines, pipelines, wellsites, powerlines, and gates.
   - This should be formulated on maps to assist the planning.

2) Defining objectives and measures of forage and fibre sustainability

   - This plan will be used to manage AUM's for sustainable grazing purposes and approved regenerated yield curve for sustainable timber production.

3) Defining existing management practices and site conditions.

   - Grazing disposition in relatively good condition, poor distribution in the NW corner away from seeded pastures.
   - Two existing cutblocks in the SE corner of the grazing disposition, at 5 years following harvesting one block is SR and the other is NSR.
   - The landscape topography is moderately well drained with undulating (2-5% slope) to moderate rolling (9-15% slope). Soils consist of orthic gray luvisol, clay loams from the Hubalta soil series. These heavy clay soils provide low organic matter and plant nutrients, creating poor to fairly good arable soil.
   - Area is situated in the Lower Boreal Cordilleran Ecoregion and the Southern Alberta Uplands Ecodistrict (Strong and Leggat 1992). Prior to harvesting, the area was dominated by Trembling aspen-Balsam poplar/Green Alder/Marsh Reed Grass situated along midslope positions. Lower, moister landscape positions contained Trembling aspen-Balsam poplar/River-Green Alder/Marsh reedgrass, while drier uplands produced Trembling aspen-Balsam poplar/Strawberry/Marsh Reed Grass.

4) Defining strategies to integrate harvesting, reforestation, and range management practices.

1) Protecting existing facilities:

- Damage cost to existing fence, created during harvesting operations, to be covered by the timber operator. Damage costs will consist of both fencing materials and labor.
- Cutblocks will be cut and debris removed to existing fencelines (max 10 meters).

2) Sustaining forage and fibre resources:

Timber Management:

- A 3-pass harvest rotation will be initiated the winter of 2000.
- The first pass-harvesting schedule will start the winter of 2000-2001 and continuing the winter of 2001-2002. The northeast section will be logged the winter of 2000-2001, and the southeast section will be logged the winter of 2001-2002.

Range Management:

- To mitigate concerns a fenceline (permanent or temporary) will be constructed along the north boundary of block #XYZ running east and west. Timber operator will supply the cost of materials and labor and the grazing disposition holder will supervise the construction and be responsible for long-term maintenance.
- Cross-fencing will subdivide the harvested areas and create a rotational grazing system where AUM's will be established based on field inventory data.

Operating:

- Joint field inspections will be held before, during and following harvesting and reforestation operations between the timber operator and the grazing operator. These will be conducted to ensure agreements are fulfilled operationally re-adjust the SRWA. Joint inspections will be documented and forwarded to LFD for any required approval.

Monitoring:

- Joint field inspections will be held between the timber company and the grazing disposition holder at one, two, and three years following harvesting. These joint inspections will be used to measure the success of the SRWA, if required, amendments to the SRWA will be discussed and forwarded to LFD for approval.

Grazing Disposition Holder: _____Date:_____

Timber Company Representative: _____Date:_____

APPENDIX III

Glossary of Terms

Animal Unit Month (AUM) - Measure of forage or feed required to maintain one (AUM) animal unit (a mature cow of 455 kg [1000 lb.] +/- a calf or equivalent) for 30 days.

Annual Allowable Cut (A.A.C.) - The volume of wood which may be harvested, under management, on an annual basis.

Annual Operating Plan (A.O.P.) - Plans prepared and submitted annually by timber operators describing how, where and when to develop roads and harvest timber. They describe the integration of operations with other resource users, the mitigation of the impacts of logging, the reclamation of disturbed sites and the reforestation of the harvested areas.

Commercial Timber Permit (CTP) - A timber disposition issued under Section 22 of the Forests Act authorizing the permittee to harvest public timber.

Compartment Assessment - Initial stage of compartment development where the objectives and strategies for planning a compartment are agreed upon. This is linked to the Five Year Development Schedule.

Compartment Design - A timber harvesting development plan for a sub-unit, describing road development and management, harvest design, silvicultural regimes, and site-specific strategies for management of other resource values. Consistent with strategies of FMP and ground rules.

Coniferous Timber Quota (CTQ) - A coniferous timber quota grants the right to harvest a percentage share of the annual allowable cut of a designated forest management unit for up to a twenty year term as defined under the Forests Act.

Deciduous Timber Allocation (DTA) - Deciduous quota allocation defined on an area or volume basis for up to a twenty year term under the Forests Act.

Five Year Development Schedule - Provides a five year planning window for the development of current and newer plans, on a compartment basis. Gives everyone the chance of seeing what is planned into the foreseeable future.

Forage - All browse and non-woody plants that are available to domestic livestock or wildlife.

Forest Management Agreement (FMA) - A contract between the Province of Alberta and the FMA holder whereby the Province provides an area based Crown Timber Supply. In return, the FMA holder commits to, managing the timber resource on a perpetual sustained yield basis taking into consideration a broad range of forest values in determining forest management practices. Meeting defined economic objectives including capital investment and job creation, and seeking out new business opportunities that provide measurable economic benefits for both the Province and the FMA holder. The FMA gives the FMA holder the right to access Crown fibre and in the return the FMA holder commits to forest management responsibilities, which may change from time to time.

Forest Management Plan (FMP) - A generic term referring to both Forest Management Unit plans prepared by the Government, and Detailed Forest Management Plans prepared by industry.

Forest Grazing License (FGL) or Grazing License (GL) - a grazing disposition approved under the Public Lands Act for the rights for summer grazing (June 1 to October 31) on crown land. A FGL holder cannot control public access, exploration, or access for timber removal; however, a FGL holder can receive compensation for surface rights activity except timber harvesting.

Forest Resource Improvement Association of Alberta (FRIAA) - An association on contract to SRD who are responsible for reforestation on designated timber permits. FRIAA in the context of the guidelines is considered a timber operator.

Guidelines - a set of recommended or suggested methods or actions that should be followed in most circumstances to assist administrative and planning decisions, and their implementation in the field. Note that guidelines cannot, by definition, be mandatory.

Grazing Disposition - An authorization issued by the Department of Land & Forest Division for the purpose of domestic livestock grazing on public land. This is normally in the form of a grazing lease (GRL), a forest grazing license (FGL/GL), grazing permit (GRP), and a Head Tax Permit (HTP).

Grazing Lease (GRL) - a grazing disposition approved under the Public Lands Act for the rights for summer grazing (June 1 to October 31) on crown land. A GRL is considered "occupied public land" that conveys an estate or interest sufficient to enable the holder to exclude persons from entering. The GRL holder does not have the rights to receive compensation or restrict access for timber removal.

Grazing operator(s) - An individual or group who have a registered grazing disposition for the purpose of domestic livestock grazing on public land.

Grazing Permit (GRP) - Grazing permits are issued authorizing the grazing of livestock on public land. A grazing permit terminates on December 31 next following the date of its issue. A grazing permit gives the holder the exclusive right to graze livestock on the land under the permit.

Harvesting Pass (HP) - Period over which a predetermined proportion of merchantable timber is removed. Harvesting of an area is typically done in two to three passes within an elapsed period of time between passes, e.g. 10 years.

Head Tax Permit (HTP) - Head tax grazing permits are issued for the grazing of livestock on public land for any period of time within a calendar year not exceeding 12 months. A permit is not assignable.

Integrated Resource Management (IRM) - A holistic resource management philosophy and approach where the underlying intent is to share and coordinate among a broad range of values and interests when conceiving, designing and implementing land and resource policies, programs or projects. The concept of IRM is based on the idea that adoption of an inclusive view, examination of interconnections among values, and the identification of common goals and key elements upon which to focus management attention, can derive maximum benefits from scarce resources.

Miscellaneous Timber Use (MTU) - an area managed by the government and reserved to provide timber for operators who harvest small volumes of timber each year.

Multiple use - Land area is managed in order to support the integrated use with timber and non-timber interests, including water, grazing, industrial development, recreation and wildlife issues.

Noxious Weeds - a plant that is designated under the regulations or a by-law as a noxious weed and includes noxious weed seeds. The Counties and Municipal Districts and Land & Forest Division in West-Central Alberta have targeted the following plants as problem noxious weeds:

a) Tall buttercup -Ranunculus acris L.
b) Scentless Chamomile -Matricaria maritima L.
c) Common tansy -Tanacetum vulgare L.
d) Oxeye daisy -Chrysanthemum leucanthemum L.
d) Toadflax - Linaria vulgaris
e) Canada thistle - Cirsium arvense L.

Current government policy for weeds refer to:

- Weed Control Act, Section 31
- Public Lands Act, Section 60
- SRD, Forest Management Branch Directive (No. 2001-06) Weed Management in Forestry Operations.

Primary range - Area of land utilized by livestock without any management inputs for distribution. Livestock will normally over graze before moving into secondary range.

Range Carrying Capacity - The carrying capacity for a grazing disposition represents the maximum number of animal unit months (AUMs) that can be sustained without causing damage to vegetation or related resources. This includes only the available forage from suitable plant community types that can be grazed with good, practical management techniques. The carrying capacity is based on the entire land area; however, there will always be certain percentage of the land base that cannot be effectively grazed.
Standard guidelines for assessing AUMs permit 25% of the total forage production from forest and 50% from clearings to contribute to the carrying capacity of a given plant community type. Based on the legal requirement of the forest sector to meet provincial forest regeneration standards outlined in the Alberta Regeneration Survey Manual (2000) there is great concern from the forest industry regarding the amount of livestock use on regenerating cutblocks. Therefore, AUM calculations are based on the production in unharvested forest stands not based on the forage within recently harvested areas.

Range Grazing Capacity - The grazing capacity calculation reflects the area of land that is only being used by livestock based on the current level of management of livestock distribution. A manager who is not effectively using tools and techniques to modify stock distribution, will find grazing pressure is confined to preferred areas or the primary range. In some situations, the grazing capacity maybe based on the capacity of the primary range, which is well below the potential or carrying capacity of the grazeable land area.

Range Health - Range health defines the ability of rangeland to perform certain functions. These functions include net primary production, maintenance of soil/site stability, capture and beneficial release of water, nutrient and energy cycling and plant species functional diversity. Healthy rangelands will provide sustainable grazing opportunities for livestock producers and also sustain a long list of others products and values. Declines in range health will alert the range manager to the need for management changes.

Range Improvements - Any improvement to the grazing disposition landbase to assist in livestock distribution and production. Range improvements consist of the following: seeded pastures, water dugouts, cattle trails, cross-fences, corrals, and salt block locations.

Range Management - Simply stated, range management is about balancing human needs and demands from rangelands with the needs of the range resource; i.e. to protect soil, vegetation and water. Traditionally, range management has dealt with manipulating grazing so that both plant and animal production are maintained or improved. Today, range management also includes a broader perspective of grazing. It is viewed as a natural process and tool for perpetuating rangeland ecosystems to be managed along with other factors like fire, disturbance, and human activity.

Restricted Weeds - a plant that is designated under the regulations or a by-law as a restricted weed and includes restricted weed seeds. The following plants are designated as restricted weeds in Alberta:

a) Red bartsia -Odontites serotina L
b) Diffuse knapweed -Centaurea diffusa L
c) Spotted knapweed -Centaurea maculosa L
d) Nodding thistle -Carduus nutans L
e) Eurasian Water Milfoil -Myriophyllum spicatum L
f) Dodder -Cuscuta spp.
g) Yellow star-thistle -Centaurea solstitialis

Current government policy for weeds refer to:

- Weed Control Act, Section 31
- Weed Control Act, Section 31
- Public Lands Act, Section 60
- SRD, Forest Management Branch Directive (No. 2001-06) Weed Management in Forestry Operations.

Secondary Range - Area of land utilized by livestock only when management inputs are applied.

Silviculture - The theory and practice of controlling the establishment, composition, structure and growth of forests.

Silviculture-Range Working Agreement (SRWA) - a negotiated agreement between timber and grazing operators to integrate timber harvesting, reforestation, and range management to ensure sustainable timber, forage, and other resource values, i.e. wildlife habitat. The SRWA should define:

1) inventory of existing grazing developments;
2) objectives and benchmarks of forage and fibre sustainability;
3) existing management practices and site conditions;
4) strategies to integrate harvesting, reforestation, and range management practices; and
5) existing access and access management requirements. The SRWA recognizes three management phases: planning, operational, and monitoring.

Stocking Rates - the amount of land allocated to each animal unit for the entire grazable period of the year, i.e. ha/AUM.

Timber license - a timber disposition authorizing the harvest of predominately one species group, with minor volumes of another species group. For example, a coniferous timber license authorizes the harvest of predominately coniferous timber volume with minor deciduous volumes.

Timber operations - Includes all activities related to timber harvesting including site assessments, planning, road construction, harvesting, reclamation and reforestation.

Timber operator(s) - Includes all individuals or representatives directing involved with timber operations, i.e. site assessments, planning, road construction, harvesting, reclamation, and reforestation. These individuals or groups would include where applicable, FMA holders, quota holders (CTQ/DTA), timber permit holders (CTP/DTP) and FRIA

APPENDIX IV

Joint Inspection Form

(preharvest / post-harvest)

The following detachable forms should be used during the operating and monitoring phases. Forms should be signed by both the grazing and timber operators and submitted to LFD.

Joint Inspection Form

(preharvest / post-harvest)

Date: _____ Grazing Disposition: _____

Grazing operator: _____ Location: _____

Mailing Address: _____

Phone / Fax / E-Mail: _____

Timber Operator: _____ Block Number: _____

Silviculture - Range Working Agreement

❑ Yes ❑ No Date: _____

Sketch Diagram of Grazing Disposition and Note the Following:

- fence and gate locations: _____
- existing roads and access trails: _____
- watering and salting areas: _____
- springs, licks or other sensitive areas: _____
- location of any range improvements: _____
- weeds: type, extent and location: _____

The Following is a Checklist of Items to Note as part of the Joint Meeting / Inspection:

- ❑ note condition of fences and gates: _____
- ❑ note species, locations and extent of restricted and noxious weeds: _____
- ❑ note timing and rotational historic use of pastures: _____
- ❑ note location of access routes up to and through the disposition: _____
- ❑ note any other land use activities in the lease area: _____
- ❑ note any upcoming fencing or range management plans: _____
- ❑ Status of any existing blocks, i.e. NSR or SR: _____

Items Requiring Discussion to Help Integrate Logging/Range Management Activities:

- opportunities for common access/corridor development: _____
- preferred access routes: _____
- type of road: _____
- class of road: _____
- season of use: _____
- duration of use: _____
- location, type, duration and responsibility for access control measures: _____
- gates, signage, etc; _____
- existing access trails requiring protection: _____
- review harvest and reforestation practices: _____
- review reclamation practices and future access requirements for follow-up reforestation and survey work over the years: _

  _____
- review range management plan and strategies: _____

  _____

Note: deviations from this inspection by either party should be referred to the other.A signed copy of this inspection report should be maintained by each stakeholder and submitted to Land and Forest Division.

Sign off: _____ _____

Grazing Operator Timber Operator

Date: _____ _____

Joint Inspection Form

(preharvest / post-harvest)

Date: _____ Grazing Disposition: _____

Grazing operator: _____ Location: _____

Mailing Address: _____

Phone / Fax / E-Mail: _____

Timber Operator: _____ Block Number: _____

Silviculture - Range Working Agreement

❑ Yes ❑ No Date: _____

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Grazing Operator Timber Operator

Date: _____ _____

Joint Inspection Form

(preharvest / post-harvest)

Date: _____ Grazing Disposition: _____

Grazing operator: _____ Location: _____

Mailing Address: _____

Phone / Fax / E-Mail: _____

Timber Operator: _____ Block Number: _____

Silviculture - Range Working Agreement

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Sign off: _____ _____

Grazing Operator Timber Operator

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Joint Inspection Form

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Silviculture - Range Working Agreement

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Sign off: _____ _____

Grazing Operator Timber Operator

Date: _____ _____